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"Restoring The Bay's ecosystem ... from the Sierra to the sea."

June 24, 1998

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CALFED Bay-Delta Program
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**RE: DRAFT PROGRAMMATIC EIS/EIR FOR THE CALFED
BAY-DELTA PROGRAM**

Dear Mr. Breitenbach,

This letter is submitted as the comments of The Bay Institute of San Francisco regarding the March 16, 1998, Draft Programmatic Environmental Impact Statement/Environmental Impact Report (DPEIS/R) for the CALFED Bay-Delta Program. We incorporate by reference all comment letters and memoranda previously submitted by The Bay Institute to the CALFED Bay-Delta Program, including Bay-Delta Advisory Council (B-DAC) workgroups.

In our view, the insufficiently defined objectives, incomplete or missing technical, economic and policy analyses, and absence of a coherent, integrated long-term phased decision-making strategy in the DPEIS/R render it inadequate as a basis for adopting and implementing a long-term solution to conflicts over uses of the San Francisco Bay-Delta estuary's waters.

A number of key areas which have not been adequately addressed by the Program, including an ecosystem restoration planning framework, expanded demand management assumptions and impact analysis, more developed components of a water transfers program, clearer articulation of water supply reliability assumptions and objectives, more comprehensive water quality evaluation and criteria, reevaluation of levee maintenance assumptions, expanded storage impact and cost analysis, and development of a phasing strategy, were identified in the January 6, 1998, letter from The Bay Institute to Lester A. Snow.

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We appreciate the Program's increased efforts subsequent to the issuance of the DPEIS/R to begin to remedy some of the deficiencies of the draft. We were encouraged by the description of pending Program initiatives contained in the April 7, 1998, reply letter from Mr. Snow. It is clear from the Program's response to our concerns that the March 16 DPEIS/R cannot serve as the basis for a final CALFED decision, and we support the Program's recent decision to issue a revised DPEIS/R as the next milestone on the pathway toward the final decision. We look forward to the Program's development of an ecosystem restoration strategic plan, a least-cost water management analysis, an expanded water quality evaluation, and a phased decision-making strategy. To supplement these efforts, we also encourage the Program to sponsor independent scientific review of the water use efficiency, water quality and levee protection programs, and of unresolved issues regarding storage and conveyance alternatives, and to initiate a number of previously agreed-upon technical analyses regarding Delta land use. We remain committed to working with Program staff and other interested parties in the development of a more defensible document that can serve as the basis for a comprehensive and durable long-term Bay-Delta solution.

We request that in its response to comments the Program respond in greater detail to all the issues of concern identified in our January 6 letter. The following comments are on DPEIS/R issues in addition to those covered in the January 6 letter.

Ecosystem restoration program plan (ERPP)

We support the development of a strategic plan for the ERPP, as recommended by the B-DAC Ecosystem Restoration Workgroup and as described in the Technical Appendix. When the strategic plan has been completed, the specific restoration targets and management measures contained in the ERPP should be reevaluated and modified as appropriate in order to conform with the goals and objectives, performance metrics, hypothesis-testing and assessment criteria, and implementation priorities established in the strategic plan.

While we are encouraged by the recent initiation of the Tier I (core drafting team) effort to prepare the strategic plan, we are concerned that CALFED has not initiated or even secured funding for the Tier II (standing science body) and Tier III (independent review panel) technical support for the strategic plan effort also recommended by the B-DAC Ecosystem Restoration Workgroup.

The following are included as attachments to this comment letter relevant to the development of a strategic plan and the refinement of the ERPP:

- a draft white paper, "Tools for Developing Bay-Delta Restoration Performance Metrics."

- the final version of "From the Sierra to the Sea: The Ecological History of the San Francisco Bay-Delta-River System," a report on historical conditions and recent changes in the estuary.

Finally, we are concerned that the ERPP has been and continues to be held to a higher standard than other elements of the Program. We strongly urge that these standards -- clear, measurable goals and objectives; the use of a strategic planning approach that relies on managing adaptively, testing hypotheses, and setting priorities; and independent scientific review -- be applied to all other major components of the long-term solution.

Distinguishing characteristics of alternatives (Phase II interim report)

Brackish water habitat -- We are concerned that the finding that brackish water habitat is not a major distinguishing characteristic of the alternatives may not be fully justified.

First, the significance of brackish water habitat as a distinguishing characteristic should be evaluated on the basis of specific intra-annual impacts, rather than on the basis of average inter-annual impacts. Inter-annual averages can mask significant intra-annual variations.

Second, the upstream movement of the 2 ppt salinity isohaline (X2) for a distance equal to or greater than 2.5 km at any time within a given water year (as a cumulative result of any or all Program elements) should be considered as a potentially significant impact. Given the management importance of the X2 standard (the high degree of supporting evidence and scientific consensus that abundance of estuarine organisms is positively correlated to the downstream movement of X2 during the February - June period, and the persistent physical association of some estuarine species with the X2 location at other times of the year), the Program should identify where upstream movement of X2 = or > 2.5 km at any time is a distinguishing characteristic between alternatives and in any case modify the alternatives correspondingly to preclude significant upstream movement of X2 at any time.

Third, brackish water habitat (and a number of other distinguishing characteristics identified in the DPEIS/R) may potentially be more strongly modified by alternative approaches to storing and releasing water upstream of the Delta and in export areas rather than by alternative approaches to conveying water through or around the Delta. This underscores the need for the Program to differentiate between major distinguishing characteristics of storage alternatives as opposed to major distinguishing characteristics of conveyance alternatives.

Diversion effects on fisheries -- We agree with the findings in the DPEIS/R that there are major unresolved technical issues regarding diversion effects on fisheries and Delta flow patterns, and that a technical effort to address these issues is necessary. The outstanding issues regarding diversion effects on fisheries identified in the DPEIS/R cannot be resolved prior to a final CALFED decision. The Program's technical effort should focus on developing a program of research, experimentation and assessment as part of a long-term phased decision-making strategy.

In addition to the specific issues discussed in the DPEIS/R, we raise the following concerns:

- Near term species protection is critical. The Program should further examine how reoperation of the existing system incorporating operational flexibility, transfers, conjunctive use, improved instream spawning and attraction flows through acquisitions, etc., can assist in accomplishing this goal.
- The "recovery" or "restoration" of fish species of concern is a critical component of the ERPP. However, the Program has not made an attempt to define the aforementioned terms which leaves the door open to interpretation. Calfed should determine, with the appropriate regulatory agencies, what the expectations are for large enough populations to avoid "jeopardy" v "sustainable" populations given the inherent variability that exists on a range of levels.
- It is not possible to evaluate whether habitat improvements can offset diversion effects unless, first, the Delta habitat restoration and management measures of the ERPP have been described in greater detail (in other words, a clearer picture of the "restored" Delta is available) and reviewed for consistency with the strategic plan when completed, and, second, on-the-ground implementation of the ERPP has been evaluated for actual performance. Furthermore, even with this information it will be extremely difficult in the foreseeable future to assess the relative contribution of various habitat improvements and stressor reductions toward achieving endangered species recovery or other objectives. In the end, such hoped for offsets may not materialize.
- The benefits to species of concern of shallow water habitat restoration in the Delta are impossible to quantify at this point (i.e., potential for and magnitude of increase in food supply, less predator effects, filtering of toxics, etc.). The Program should better describe its expectations and rationale for shallow water habitat restoration in the Delta, define "shallow water habitat," and outline a series of sampling, monitoring, and evaluation tools that will accompany restoration.
- The effects of exotic species on native species in the estuary is largely unknown. The Program should further examine impacts associated with species-to-species and species-to-habitat interactions, as well as focus efforts on prevention of future introductions.

- The effects of contaminants on many species of concern is largely unknown. The Program should commit serious effort to determining the effects of various contaminants, such as mercury and selenium on, the health of various species and the link to population effects, and human health concerns. Also, the Program should further examine the potential for source reduction which would provide water quality and ecosystem benefits.
- Adaptive management is key to the successful restoration of the species of concern and of the ecosystem in general. The Program should better define the principles of adaptive management will be applied to provide near term species protection, as well as implementing long term ecosystem restoration elements.
- The technical analysis of diversion effects on fisheries appears to be on salmon, Delta smelt, and striped bass. Additional analyses of potential effects on all species of concern, including the Sacramento splittail and steelhead, may need to be conducted as part of the effort.

The Program should not look for the "silver bullet" solution in the Delta, from a fisheries perspective, because it does not exist. Each of the Delta alternatives could potentially result in some level of benefit and impact for each of the species of concern, but none of the alternatives, as currently configured, provides benefits for all species. Further, given the level of uncertainty that exists and the limited scope of Calfed's diversion effects on fisheries analysis, the Program should not make a decision on how, or whether, the Delta should be reconfigured at this time. The Program should commit to implement, monitor, and assess as many "ecosystem restoration" elements as possible including shallow water habitat restoration, screening of diversions, riparian corridor restoration, improved interactions between floodplains and channels, sediment management, and watershed planning among them that will provide fisheries benefits.

In sum, the Program should assume that a comprehensive approach -- one that includes significantly reducing diversion effects on fisheries, restoring habitat conditions and investigating the influence of other factors on fishery objectives -- is necessary. Finally, the Program should sponsor independent scientific review of its technical efforts to resolve these outstanding issues.

Long-term levee protection program

The levee protection program as described in the DPEIS/R continues to be one of the weakest elements of the Program, and we have been extremely disappointed with the lack of an adequate response to our previously expressed concerns. This program appears to be predicated on a number of questionable assumptions regarding the long-term sustainability of the Delta islands, and ignores basic issues regarding the environmental and economic factors associated with current Delta land use.

Furthermore, we find little evidence of the integration between the levee protection program and the ERPP which is referred to in the DPEIS/R.

The importance of these issues was acknowledged in the CALFED Bay-Delta Program Phase I Final Documentation Report (September 1996). In that report, the Program recognized the need for:

- "a risk-based benefit/cost analysis including consideration of converting land vulnerable to levee failure to areas of improved habitat" (p.31).
- "an expert panel to provide advice on long-term sustainability of Delta habitat and infrastructure" who will consider options including "a mix of actions that allow for the gradual, phased, large-scale restoration of leveed islands to a mixed mosaic of uses emphasizing high quality habitat" (p. 39).
- an examination of "such factors as (1) the environmental and economic costs and benefits resulting from major conversion of land to environmental purposes; (2) the long-term sustainability of the Delta islands, given the economics of farming, the risks of permanent flooding from seismic and other causes, and the costs of levee maintenance repair and subsidence control..." (pp. 39-40).

The Program has utterly failed to develop a comprehensive evaluation of the long-term sustainability of current Delta land use. The Delta levee technical workteam effort sponsored by the Program is focused on maintenance of the existing levee system and is not adequate to develop this information. We strongly urge the Program to initiate the analyses identified in the Phase I report, including appropriate independent scientific review.

Implementation strategy

As we indicated in our January 6 letter, the Program needs to develop a more sophisticated implementation strategy that utilizes phased decision-making. We support recent efforts by the Program to explore this strategy, and we intend to submit comments under separate cover on the May 7 draft "Nature of Decision/Selecting a Preferred Alternative" document prepared by the Program.

Additional analyses

The Bay Institute, along with several members of the EWC, are currently engaged in analyses that endeavor to demonstrate that current deliveries can continue to be made, while achieving fisheries and other environmental benefits, by reoperating the existing system. These analyses currently include reoperation scenarios -- associated with the existing export configuration -- that incorporate a "fish friendly" pumping schedule, the delayed filling of San Luis, flexible E/I ratios to take advantage of high flow periods

Rick Breitenbach
June 24, 1998
Page 7

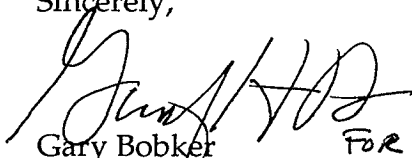
and decrease demand and likewise impact during low flow periods, the ability to move stored water north to south to provide environmental benefits and facilitate export, some use of joint point of diversion. We believe that an effort must be made to fully examine the concept of operational flexibility, under the existing configuration, to continue to meet water delivery and environmental goals.


We recommend that the Program undertake similar analyses. In addition, we would like to see further analysis related to the feasibility of the development - or not - of conjunctive use, water transfer, and conservation programs to compliment reoperation. Lastly, we would hope that the Program would recognize demand-side management as a key component of water management in the Bay-Delta, and that projected future demand should better reflect a more realistic scenario of water agency response to a limited water supply. We would like to meet with Calfed staff later this summer to better define these studies and to compare results.

Finally, in addition to this comment letter and its attachments, The Bay Institute will submit, by July 1, 1998, a joint comment letter by the Environmental Water Caucus.

Thank you for your consideration of our views. If you have any questions regarding these comments, please contact us at (415) 721-7680.

Sincerely,


Gary Bobker
Senior Policy Analyst


Elise Holland
Fisheries Program Director